

ISODENDRION CHRISTENSENII (VIOLACEAE) OF KAUAI
HAWAIIAN PLANT STUDIES 81

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Isodendrion, of the Violaceae, is a genus endemic to the Hawaiian Islands. It consists of 14 species, 5 of which are probably extant, but the other 9 are evidently extinct. They mostly grew in the lower dry forest zone, or dry scrub zone, areas which have been exploited and heavily grazed. Three of the living species grow only on the island of Kauai. The discovery of a fourth surviving species on that island is noteworthy. The recent monograph of the genus was by St. John (1952).

Isodendrion Christensenii sp. nov., fig. 1.

Diagnosis Holotypi: Frutex 30 cm altus glaber est, ramula foliosa 2-3 mm diametro viridi sed rubrimaculata, internodis 7-15 mm longis, nodis non incrassatis, stipulis 2.5 mm longis 2 mm latis deltoideis paulum inconcinnis in basi bullatis midnervo incrassato elevato margini et apice obtuso badi-membranaceis, petiolis 3-3.5 mm longis supra late canaliculatis, laminis 6.5-12.5 cm longis 3-4 cm latis subcoriaceis anguste oblanceolatis subintegribus sed remote minutiore serrulatis supra olivaceis infra albis in paginis ambis prominente reticulatis, inflorescentiis axillaribus 1-floriferis, pedunculo 2 mm longo, bracteis basalibus, sepalis 3-3.5 mm longis 1.5-2.2 mm latis ovatis ad ovati-lanceolatis albis translucetibus minime erosis, petala infera maxima 9.5 mm longa et in puncto $3/4$ ex basi contrahenti ungui 1.7 mm lato ligulato 3-nervoso canaliculato vitta centrali incrassata, limbo 3 mm longo 1.8 mm lato elliptico subcrasso nervis lateralibus compluri-furcatis, petalis lateralibus 9.5 mm longis et in puncto $3/4$ ex basi contrahentibus, ungui 1.5 mm lato simulanti limbo 2.2 mm longo 1.5 mm lato elliptico, petala supera 9 mm longa paulum contrahenti ungui 1.4 mm lato limbo 2.2 mm longo 1.8 mm lato, filamentis 1 mm longis, antheris 1 mm longis deltoideis, ovario 0.5 mm longo anguste ovoideo, stylo 2.3 mm

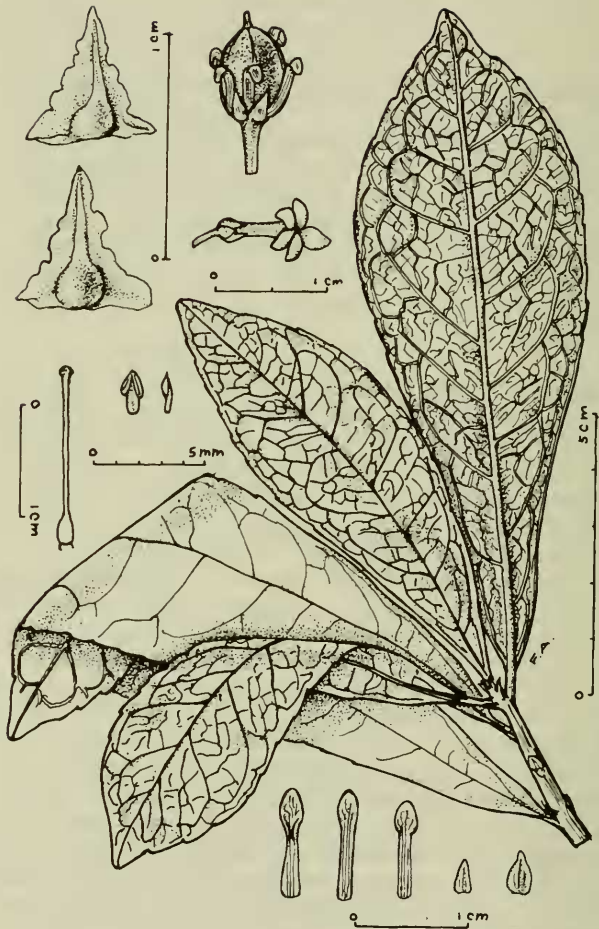


Fig. 1. Isodendrion Christensenii St. J. Kauai, Wainiha-
Manoa - 1920 ft. VII/30/77. C. Christensen 281
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longo, pedunculo in fructu 4 mm longo cernuo, capsulis 10 mm longis 5 mm diametro obovoideo subacuto papilloso paulum 3-laterato, 3 suturis impressis.

Diagnosis of Holotype: Shrub 30 cm tall, glabrous; leafy part of branch 2-3 mm in diameter, green, but red maculate; internodes 7-15 mm long; nodes not enlarged; stipules 2.5 mm long, 2 mm wide, deltoid, slightly asymmetric, green, bullate at base and with a thickened raised midrib, the margin and the obtuse apex brown membranous; petioles 3-3.5 mm long, widely channeled above; blades 6.5-12.5 cm long, 3-4 cm wide, subcoriaceous, narrowly oblanceolate, subentire, but very minutely remotely serrulate, above olive green, below white, prominently reticulate on both sides; inflorescences axillary, 1-flowered; peduncle 2 mm long; bracts basal, shriveled; sepals 3-3.5 mm long, 1.5-2.2 mm wide, ovate to ovate lanceolate, white, translucent, slightly erose; lower petal the largest, 9.5 mm long, contracted 3/4 way from the base, claw 1.7 mm wide, ligulate, 3-nerved, channeled, the central strip thickened, the limb 3 mm long, 1.8 mm wide, elliptic, thickish, the lateral veins several times forked; lateral petals 9.5 mm long, contracted 3/4 way from the base, the claw 1.5 mm wide, similar, the limb 2.2 mm long, 1.5 mm wide, elliptic; upper petal 9 mm long, scarcely contracted, the claw 1.4 mm wide, the limb 2.2 mm long, 1.8 mm wide; filaments 1 mm long; anthers 1 mm long, deltoid; ovary 0.5 mm long, narrowly ovoid; style 2.3 mm long; peduncle becoming 4 mm long, cernuous; capsule 10 mm long, 5 mm wide, obovoid, subacute, papillose, slightly 3-sided, and with 3 impressed sutures.

Holotypus: Hawaiian Islands, Kauai Island, Wainiha-Manoa drainage, just s. of Kulanaililia, wet forest in small gulch running into Manoa Stream, 1,920 ft. elev., July 30, 1977, Charles Christensen 281 (BISH).

Discussion: I. Christensenii is most closely related to I. maculatum St. John, a species of Hanakapiai, Kauai, which has the petioles 5-17 mm long; blades 6.4-22 cm. long, 1.8-7.7 cm wide; lower petal 7.8-9 mm long, the limb 2.6-2.7 mm long, 1.7-1.8 mm wide, oval, the apex subcucullate, the claw 5.2-6.3 mm long; lateral petals 7.6-8.8 mm

the limb 2.5-3.2 mm long, 0.4-1.9 mm wide, narrowly ovate, the claw 5.1-5.6 mm long, 1.5-1.9 mm wide; anther obcuneate oblong, minutely apiculate; and the sepals 4.5-4.7 mm long, 1.4-2.4 mm wide, 5-7-nerved, ciliate above. I. Christensenii has the petioles 3-3.5 mm long; blades 6.5-12.5 cm long; lower petal 9.5 mm long, the limb 3 mm long, 2.3 mm wide, obtuse, the claw 7 mm long; lateral petals 9.5 mm long, the limb 2.2 mm long, 1.5 mm wide, elliptic; anthers deltoid; and the sepals 3-3.5 mm long, 1.5-2.2 mm wide, 3-nerved, entire.

The new epithet is chosen to honor the collector, Charles Christensen (1934 -), born at Kendrick, Idaho, studied at the University of Idaho, earning his B.S in Agriculture 1956; M.S in 1964; he lived on Hawaii from 1957 to 1969, on Kauai from 1970 to the present. He serves at Lihue as Plant Quarantine Inspector for the State of Hawaii.

Literature Cited

St. John, Harold. 1952. Monograph of the Genus *Isodendron* (Violaceae). Hawaiian Plant Studies 21. Pacif. Sci. 6: 213-255, figs. 1-15.

Legend

Fig. 1. Isodendron Christensenii St. John, from holotype. a, habit, X 1; b, c, stipules, X 8; d, flower, X 2; e, f, sepals, X 2; g, lower petal, X 2; h, lateral petal, X 2; i, upper petal, X 2; j, k, stamen, X 4; l, pistil, X 2; m, capsule and perianth, X 2.